

**(19) World Intellectual Property Organization
International Bureau**



(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/105380 A1

(51) International Patent Classification⁷: **H04J 3/16**

(74) Agents: **TRIPOLI, Joseph, S** et al.; c/o Thomson Licensing, Inc., Two Independence Way, Princeton, NJ 08540 (US).

(21) International Application Number: PCT/US03/16714

(22) International Filing Date: 28 May 2003 (28.05.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/386,319 6 June 2002 (06.06.2002) US

(71) Applicant (for all designated States except US): THOMSON LICENSING S.A. [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne (FR).

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors: and

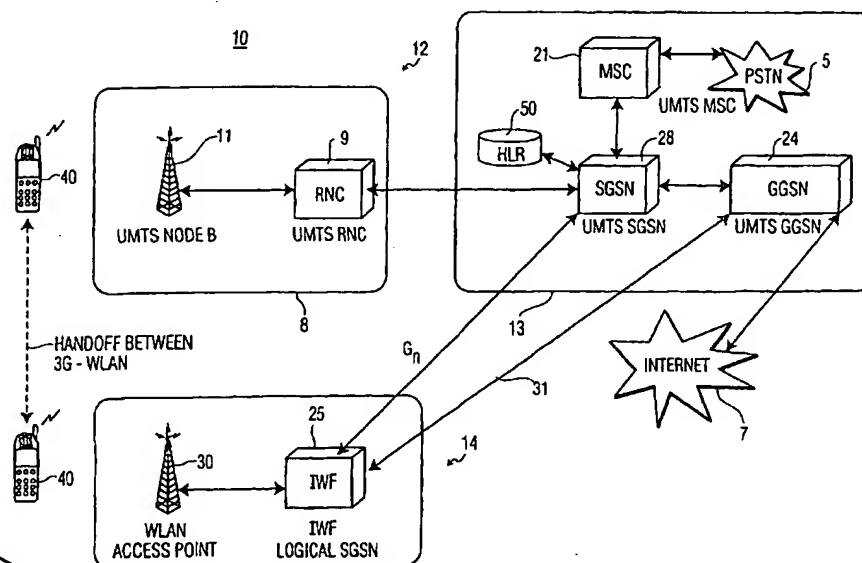
(75) **Inventors/Applicants (for US only): VERMA, Shaily** [IN/IN]; A-305 Glengate, Hiranandani Gardens, Powai, Mumbai 400 076 (IN). **WANG, Charles, Chuanming** [US/US]; 1504 Spearmint Circle, Jamison, PA 18929 (US).

Published:

— with international search report

[Continued on next page]

(54) Title: WLAN AS A LOGICAL SUPPORT NODE (SGSN) FOR INTERWORKING BETWEEN THE WLAN AND A MOBILE COMMUNICATIONS SYSTEM



(57) Abstract: An interface (28) for connecting networks includes an interworking function provided between a wireless local area network (WLAN) (8, 14) and a Public Mobile Land Network (PLMN) (13) to provide communication interactions between the PLMN (13) and the WLAN (8, 14). The interworking function includes a dual-protocol stack, which interfaces the WLAN protocols and PLMN protocols to provide seamless communications between the WLAN (8, 14) and the PLMN (13) such that an increase in available service bandwidth provided for users of the PLMN is maintained.

WO 03/105380 A1